

CLAIMS

What is claimed is:

1. A method comprising:
 - receiving a request for a connection over a network to an address, wherein the network conforms to a first network protocol, and the address conforms to a second network protocol;
 - comparing a field to the network address; and
 - establishing the connection to a network node corresponding to the field if the field matches the network address.
2. The method of claim 1, wherein the receiving a request comprises requesting a connection over a Fibre Channel (FC) network using an Internet Protocol (IP) network address.
3. The method of claim 1, wherein the comparing comprises:
 - querying a name server to retrieve the field; and
 - comparing a node name subfield of the field to the address.
4. The method of claim 1, wherein the network node comprises a filer.
5. The method of claim 4, wherein the node name subfield includes a first and a second portion, and wherein the first portion corresponds to a destination filer, and the second portion corresponds to a failover filer.

6. The method of claim 5, further comprising:
transferring the address to the failover filer if the destination filer is down.
7. The method of claim 2, wherein establishing the connection comprises establishing a Virtual Interface (VI).
8. An apparatus comprising:
a first network node to request a connection over a network using a network address, wherein the network conforms to a first network protocol and the network address conforms to a second network protocol; and
wherein the first network node queries the network and requests a field, and if the field matches the network address, the connection is made between the first network node and a second network node corresponding to the field.
9. The apparatus of claim 8, wherein the first protocol is Fibre Channel (FC) and the second protocol is Internet Protocol (IP).
10. The apparatus of claim 8, wherein the first network node comprises a source storage server, and the second network node comprises a destination storage server.

11. The apparatus of claim 8, wherein the first network node comprises a source filer, and wherein the second network node comprises a destination filer.
12. The apparatus of claim 11, wherein the field includes a first portion and a second portion, and wherein the first portion corresponds to the destination filer, and the second portion corresponds to a failover filer coupled to the destination filer.
13. The apparatus of claim 12, wherein if the destination filer is down, the network searches for a second field, the second field corresponding to the failover filer.
14. The apparatus of claim 8, further comprising a name server coupled to the network to store the field.
15. A method comprising:
 - receiving a request for a connection over a network conforming to a first network protocol using a network address conforming to a second network protocol;
 - querying a name server and retrieving a first field from the name server;
 - comparing a first portion of the first field to the network address; and

establishing the connection to a first network node corresponding to the first field if the first field matches the network address, and if the first network node is down, establishing a connection to a second network node corresponding to a second field.

16. The method of claim 15, wherein the querying comprises requesting the first field from among a set of fields.

17. The method of claim 15, wherein the first network protocol is Fibre Channel (FC) and the second network protocol is Internet Protocol (IP).

18. The method of claim 17, wherein the receiving a request comprises receiving a request from a first filer to access a second filer using an IP address over an FC network.

19. A storage server comprising:

- a processor;
- a memory coupled to the processor, the memory storing instructions which, when executed by the processor, cause the storage server to perform a process comprising:
 - requesting a connection over a Fibre Channel (FC) network using an Internet Protocol (IP) address;
 - querying a name server coupled to the FC network;
 - retrieving a field from the name server;

comparing the field to the IP address, and if the IP address and the field match, establishing the connection to a host corresponding to the field.

20. The storage server of claim 19, wherein the connection is a Virtual Interface (VI).

21. The storage server of claim 19, wherein the field comprises a node name field.

22. The storage server of claim 19 wherein the process further comprises:
partitioning the field into a first and a second portion;
storing the IP address in the first portion, and a failover IP address in the second portion;
determining if the network node is down, and if the network node is down, searching the name server for the IP address in the second portion;
establishing a connection with a failover server wherein the second portion of the field corresponds to the failover server.

23. A method comprising:
receiving a Transmission Control Protocol/Internet Protocol (TCP/IP) packet;
determining a destination over a Fibre Channel (FC) network for the TCP/IP packet;

determining if there is an open Virtual Interface (VI) to the destination, and establishing the VI if none is open; and transmitting the TCP/IP packet over the VI.

24. The method of claim 23, wherein establishing a VI further comprises issuing a vi_connect command to a network node.
25. The method of claim 23, further comprising disguising the TCP/IP packet from the FC network.
26. The method of claim 25, wherein disguising further comprises using a VI Application Program Interface (API) to make all packets look like FC packets.